Tripp Lite
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SmartOnline 3-Phase In/Out 120/208V 20kVA 16kW On-Line Double-Conversion UPS, Extended Run, SNMP, Webcard, Tower, DB9 Serial, Hardwired

MODEL NUMBER: **SU20K3/3**

Highlights

- 20,000 VA (20kVA) tower UPS with internal batteries
- Saves valuable space: power and battery components combined into a single small-footprint module
- Simplifies runtime scalability: convenient front panel battery access for expandable runtime with additional internal battery packs
- 3-phase hardwire input and output (120/208VAC). Wide input voltage correction range (96 - 144V AC / 166 - 250V AC)
- IGBT technology and zero transfer time, on-line, double-conversion operation
- 3 communication ports, SNMP card slot and EPO jack

Package Includes

- SU20K3/3 UPS System (power and battery components in one module)
- PowerAlert Software and cabling
- Warranty information
- Instruction manual

Description

Tripp Lite's SU20K3/3 20kVA SmartOnline 3-Phase Intelligent, True On-Line UPS System has been redesigned to save valuable space and simplify runtime scalability. Power and battery components are combined into a single, small-footprint module (the smallest in its class). A robust internal battery runtime capability can be easily extended by installing additional optional internal battery packs through the convenient front panel access door.

The SU20K3/3 provides mission-critical equipment with the highest level of power protection available. Large capacity 20,000VA/16,000 watt UPS continually converts incoming AC power into filtered DC power, and then resynthesizes it back into AC power with a pure sine wave. Perfectly regulated, continuous sine wave output with zero transfer time offers compatibility with all equipment types. IGBT inverter technology produces output power with <3% THD (total harmonic distortion), allowing connected equipment to perform at its peak. A 3:1 crest factor safely supports a variety of equipment, even those with wildly-fluctuating power demands. Extremely efficient operation saves money by lowering electricity consumption. Hardwire input and output connections support a variety of permanent or PDU style power connections. SU20K3/3 features 120/208V AC, 3-phase, 4-wire (plus ground), wye input and output. It also features a wide input voltage correction range: 96-144/166-250V AC. Frequency is 50 or 60 Hz (auto-selectable). SU20K3/3 includes internal power and battery components in a single small-footprint tower module. Battery support can be extended with additional internal battery packs. A manual bypass switch as well as an automatic bypass function ensure 100% availability of connected equipment by safely passing through AC power when the UPS requires maintenance. Three built-in communication ports (RS-232, contact closure and AS-400) work with included PowerAlert Software to simultaneously provide shutdown commands and reporting on multiple servers without the need for costly accessories. An accessory slot accepts an optional internal SNMP card (model # SNMPWEBCARD) for remote shutdowns, reboots and more. A Battery Start Switch allows cold restart of UPS during a prolonged blackout to utilize its batteries for periodic system access or data retrieval. An Emergency Power Off button turns UPS output OFF and disables Bypass output. Built-in Emergency Power Off (EPO) interface supports remote emergency shutdown in large facilities. Front panel combination LCD/LED display alerts users to a variety of UPS operational modes and conditions. A start-up service program is recommended to enhance the reliability of the installation.

Features

- Saves valuable space: power and battery components combined into a single small-footprint module
- Simplifies runtime scalability: convenient front panel battery access for expandable runtime with additional internal battery packs
- True on-line, double conversion UPS with IGBT technology provides pure, sine wave AC output at all times
- Maintains continuous operation through blackouts, voltage fluctuations and surges with zero transfer time
- Removes harmonic distortion, electrical impulses, frequency variations and other hard-to-solve power problems
- 20,000VA / 16,000 watt power capacity with 3-phase, hardwire 120/208V AC input/output connections
- Features a wide input voltage correction range: 96 - 144 / 166 - 250V AC
- Included internal batteries provide 13 minutes runtime at half load (8,000 watts) and 5 minutes runtime at full load (16,000 watts)
- 3:1 crest factor safely supports a variety of equipment, even those with wildly-fluctuating power demands
- Extend runtime by installing optional internal battery packs (model # SURBC2030) through the front panel access door. SU20K3/3 includes 2 internal battery packs and accepts 2 additional internal battery packs. A standalone battery module compartment with a 4 battery pack capacity and daisy-chain capability (model # SUBF2030) is available to further extend runtime.
- 3 communication ports (RS-232, contact closure and AS-400)
- Slot for optional SNMP card (model # SNMPWEBCARD)
- Manual bypass switch as well as an automatic bypass function ensures 100% availability of connected equipment by safely passing through AC power when the UPS system requires maintenance
- Battery Start Switch allows cold restart of UPS during a prolonged blackout to utilize its batteries for periodic system access or data retrieval
- Emergency Power Off button turns UPS output OFF and disables Bypass output
- PowerAlert Universal UPS Power Management Software and 6 ft. communication cable included
- Start-up service program is recommended to enhance the reliability of the installation
- Built-in Emergency Power Off (EPO) interface supports remote emergency shutdown in large facilities
- Combination LED/LCD display

Specifications

General Info	
RoHS	Y
OUTPUT	
Output Volt Amp Capacity (VA)	20000
Output kVA Capacity (kVA)	20
Output Watt Capacity (Watts)	16000
Output kW Capacity (kW)	16
Power Factor	0.8
Crest Factor	3:1
Nominal Output Voltage(s) Supported	120/208V; 3-Phase Wye
Frequency Compatibility	50 / 60 Hz
Output Voltage Regulation (Line Mode)	+/- 2%

Output Voltage Regulation (Battery Mode)	+/- 2%
Output Receptacles	Hardwire
Output AC Waveform (AC Mode)	Sine wave
Output AC Waveform (Battery Mode)	Pure Sine wave
INPUT	
Rated input current (Maximum Load)	60A
Nominal Input Voltage(s) Supported	120/208V AC (3ph wye)
Nominal Input Voltage Description	3-Phase Wye, 4 wire (L1, L2, L3, N, G)
UPS Input Connection Type	Hardwire
Input Phase	3-Phase
BATTERY	
Full Load Runtime (min.)	5 min. (16kw)
Half Load Runtime (min.)	13 min. (8kw)
Expandable Battery Runtime	Supports extended runtime with 2 internal and multiple optional external battery packs
External Battery Pack Compatibility	BP240V99 ; SUBF2030 (holds 4 SURBC2030); SURBC2030; BP240V350 ; BP240V400 ; BP240V400C ; BP240V500 ; BP240V500C
Expandable Runtime Description	Includes a battery housing with space for 2 internal SURBC2030 battery packs for extended runtime. Additional runtime capacity is available by adding SUBF2030 and additional SURBC2030 batteries - see runtime chart for specific recommendations
DC System Voltage (VDC)	240
Battery Recharge Rate (Included Batteries)	2 - 4 hours from 10% to 90%
Internal UPS Replacement Battery Cartridge	SURBC2030
Battery Access	Front panel internal battery access door
Battery Replacement Description	Hot-swappable, replaceable batteries
VOLTAGE REGULATION	
Voltage Regulation Description	Online, double-conversion power conditioning
Overvoltage Correction	Maintains continuous operation without using battery power during overvoltages to 144 / 250 (3-Phase, 4-Wire, wye), reducing output within 2% of nominal
Undervoltage Correction	Maintains continuous operation without using battery power during brownout / undervoltage conditions to 96 / 166 (3-Phase, 4-Wire, wye)
USER INTERFACE, ALERTS & CONTROLS	
Front Panel LCD Display	SELECTABLE LCD DISPLAY: indicates a wide range of UPS operational and fault/warning conditions including operational mode, alarm/shutdown conditions, input/output voltage/frequency, battery voltage, load percentage and more (see manual)

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Switches	ON button turns UPS's inverter ON. OFF button turns UPS's inverter OFF. Select Button browses through items displayed on LCD screen. Enter button selects items displayed on LCD screen. Select and Enter buttons used simultaneously mute UPS alarms. Battery Start Switch cold starts the inverter. Emergency Power Off button turns UPS output OFF and disables Bypass output. Manual Bypass switch bypasses the UPS's inverter during maintenance.
Alarm Cancel Operation	Power-fail alarm can be silenced using alarm-cancel switch
Audible Alarm	Alarms warn against a variety of operational conditions: low-battery, overload, shutdown, bypass and more
LED Indicators	7 LED DISPLAY: AC input, bypass input, AC-DC charger, DC-AC inverter, AC output, bypass operation and battery operation
SURGE / NOISE SUPPRESSION	
EMI / RFI AC Noise Suppression	Yes
AC Suppression Joule Rating	2032
AC Suppression Response Time	Instantaneous
PHYSICAL	
Installation Form Factors Supported with Included Accessories	Tower
Primary Form Factor	Tower
UPS Power Module Dimensions (hwd, in.)	35.9 x 19.5 x 36.8
UPS Power Module Dimensions (hwd, cm)	91.2 x 49.5 x 93.6
Installed Whole System Maximum Rack Depth (cm)	0
UPS Power Module Weight (lbs.)	519.2
UPS Power Module Weight (kg)	233.6
UPS Shipping Dimensions (hwd / in.)	44 x 28 x 44.4
UPS Shipping Dimensions (hwd / cm)	111.5 x 71.1 x 113
Shipping Weight (lbs.)	607.2
Shipping Weight (kg)	273.2
Cooling Method	Fans
UPS Housing Material	Steel
ENVIRONMENTAL	
Operating Temperature Range	+32 to +104 degrees Fahrenheit / 0 to +40 degrees Celsius
Storage Temperature Range	+5 to +122 degrees Fahrenheit / -15 to +50 degrees Celsius
Relative Humidity	5 to 95%, non-condensing
AC Mode BTU / Hr. (Full Load)	6068

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COMMUNICATIONS	
Communications Interface	DB9 Serial; Contact closure; Slot for SNMP/Web interface
Network Monitoring Port Description	RS232, contact closure and AS400 monitoring ports are supported by 3 separate DB9 ports
PowerAlert Software	Included
Communications Cable	DB9 cabling included
LINE / BATTERY TRANSFER	
Transfer Time	No transfer time (0 ms.) in online, double-conversion mode
Low Voltage Transfer to Battery Power (Setpoint)	Maintains continuous operation during undervoltages as low as 96 / 166V AC (3-Phase, 4-Wire, wye). Below this point, output is maintained utilizing battery reserves.
High Voltage Transfer to Battery Power (Setpoint)	Maintains continuous operation during overvoltages as high as 144 / 250V AC (3-Phase, 4-Wire, wye). Above this point, output is maintained utilizing battery reserves.
SPECIAL FEATURES	
Cold Start (Startup in Battery Mode During a Power Failure)	Cold-start operation supported
High Availability UPS Features	Automatic inverter bypass; Hot swappable batteries
CERTIFICATIONS	
UPS Certifications	Tested to UL1778 (USA); Tested to CSA (Canada); Tested to NOM (Mexico); Meets FCC Part 15 Category A (EMI)
WARRANTY	
Product Warranty Period (U.S. & Canada)	1-year limited warranty
Product Warranty Period (International)	2-year limited warranty
Product Warranty Period (Mexico)	1-year limited warranty
Product Warranty Period (Puerto Rico)	1-year limited warranty

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